

DECE Device Test Procedures (Subtitle Tests)

Version 1.05

Dated 14 April, 2014

Working Group: CVPI Working Group

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10 Subtitle (DSUB) Tests

10.1 DSUB001: Placement and Timing of Subtitles with SD Devices

Purpose	Verify that the Device handles the placement and timing of text and image subtitles correctly. Placement and timing are determined by the subtitles' hiding of a timed background image in the video stream that appears and disappears.
Specification Reference	DDevice 8.3.3.3, DDevice 8.3.5
Device Constraints	SD profile.
Result	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> Requires Review <input type="checkbox"/> Not Applicable
Tester Name	
Date Tested	
Device Tested (include version details)	

10.1.1 Prerequisites and Configuration

See page 10 for all prerequisites and configuration instructions applying to this test.

10.1.2 Test Files



In the File Access column, indicate whether the DUT is accessing the file on local storage, networked storage, or another method.



#	Profile	File Name	Description	File Access
1	SD	Solekai044_640_23_1x1_Sync_Subs_Txt_SD.uvu	Non-scaled video, Text subtitles	
2	SD	Solekai046_640_23_1x1_Sync_Subs_Img_SD.uvu	Non-scaled video, Image subtitles	
3	SD	Solekai049_854_23_426x75_Sync_Subs_Txt_SD.uvu	Scaled video with grid, Text subtitles	
4	SD	Solekai050_854_23_426x75_Sync_Subs_Img_SD.uvu	Scaled video with grid, Image subtitles	
5	SD	Solekai065_640_23_1x1_Sync_Subs_SD.uvu	Two hours of synchronized subtitles with grid video	


10.1.3 Test Procedure




Perform these steps on the DUT.

Step	Action	Expected Results	Result (P, F, N/A)	Tester Notes
1	Set subtitles to be ON (see DQ, Task 19). Play File 1 (see DQ, Task 3).	Video plays; no pink rectangle appears.		
2	At approx. 1 seconds in, watch the display for subtitle elements.	Shows black subtitle elements with no portion of a pink rectangle showing. Example: Black subtitle text on white background. Pink rectangle is not visible		
3	Wait until subtitle disappears. Note: Duration of all subtitles is approx. 5 seconds.	Video plays; no pink rectangle appears.		
4	At approx. 8 seconds, watch the display for new subtitle elements.	Shows blue subtitle elements with pink rectangle showing behind the text. Example: Blue subtitle text on semi-transparent background. Pink rectangle is visible behind the text.		
5	Wait until subtitle disappears.	Video plays; no pink rectangle appears.		
6	At approx. 15 seconds, watch the display for new subtitle elements.	Shows black subtitle elements with no portion of a pink rectangle showing. Example: Black subtitle text on white background. Pink rectangle is not visible.		
7	Wait until subtitle disappears.	Video plays; no pink rectangle appears.		

Step	Action	Expected Results	Result (P, F, N/A)	Tester Notes
8	At approx. 23 seconds, watch the display for new subtitle elements.	Shows blue subtitle elements with pink rectangle showing behind the text. Example: Blue subtitle text on semi-transparent background. Pink rectangle is visible behind the text.		
9	Wait until subtitle disappears. (Playback will end at approx. 30 seconds.)	Video plays; no pink rectangle appears.		
10	Play File 2 .	Video plays; no pink rectangle appears.		
11	At approx. 1 seconds in, watch the display for subtitle elements.	Shows subtitle image with a pink circle next to wording and no portion of a pink rectangle showing. Example: Black text on white background. Pink circle in the lower right corner. No pink visible around the edges of the subtitle area.  Note: During file playback, throughout all verifications of this type the circle is never to be any color except pink.		
12	Wait until subtitle disappears.	Video plays; no pink rectangle appears.		
13	At approx. 8 seconds, watch the display for new subtitle elements.	Shows subtitle image with a pink circle next to wording and no portion of a pink rectangle showing. Example: Black text on white background. Pink circle in the lower right corner. No pink visible around the edges of the subtitle area. 		
14	Wait until subtitle disappears.	Video plays; no pink rectangle appears.		

Step	Action	Expected Results	Result (P, F, N/A)	Tester Notes
15	At approx. 15 seconds, watch the display for new subtitle elements.	Shows subtitle image with a pink circle next to wording and no portion of a pink rectangle showing. Example: Black text on white background. Pink circle in the lower right corner. No pink visible around the edges of the subtitle area. 		
16	Wait until subtitle disappears.	Video plays; no pink rectangle appears.		
17	At approx. 23 seconds, watch the display for new subtitle elements.	Shows subtitle image with a pink circle next to wording and no portion of a pink rectangle showing. Example: Black text on white background. Pink circle in the lower right corner. No pink visible around the edges of the subtitle area. 		
18	Wait until subtitle disappears. (Playback will end at approx. 30 seconds.)	Video plays; no pink rectangle appears.		
19	Play File 3 .	Video plays; no pink rectangle appears. Grid shown in video is square.		
20	At approx. 1 seconds in, watch the display for subtitle elements.	Shows black subtitle elements with no portion of a pink rectangle showing. Example: Black subtitle text on white background. Pink rectangle is not visible		
21	Wait until subtitle disappears. Note: Duration of all subtitles is approx. 5 seconds.	Video plays; no pink rectangle appears.		

Step	Action	Expected Results	Result (P, F, N/A)	Tester Notes
22	At approx. 8 seconds, watch the display for new subtitle elements.	Shows blue subtitle elements with pink rectangle showing behind the text. Example: Blue subtitle text on semi-transparent background. Pink rectangle is visible behind the text.		
23	Wait until subtitle disappears.	Video plays; no pink rectangle appears.		
24	At approx. 15 seconds, watch the display for new subtitle elements.	Shows black subtitle elements with no portion of a pink rectangle showing. Example: Black subtitle text on white background. Pink rectangle is not visible.		
25	Wait until subtitle disappears.	Video plays; no pink rectangle appears.		
26	At approx. 23 seconds, watch the display for new subtitle elements.	Shows blue subtitle elements with pink rectangle showing behind the text. Example: Blue subtitle text on semi-transparent background. Pink rectangle is visible behind the text.		
27	Wait until subtitle disappears. (Playback will end at approx. 30 seconds.)	Video plays; no pink rectangle appears.		
28	Play File 4 .	Video plays; no pink rectangle appears. Grid shown in video is square.		
29	At approx. 1 seconds in, watch the display for subtitle elements.	Shows subtitle image with a pink circle next to wording and no portion of a pink rectangle showing. Example: Black text on white background. Pink circle in the lower right corner. No pink visible around the edges of the subtitle area. 		
30	Wait until subtitle disappears.	Video plays; no pink rectangle appears.		

Step	Action	Expected Results	Result (P, F, N/A)	Tester Notes
31	At approx. 8 seconds, watch the display for new subtitle elements.	Shows subtitle image with a pink circle next to wording and no portion of a pink rectangle showing. Example: Black text on white background. Pink circle in the lower right corner. No pink visible around the edges of the subtitle area. 		
32	Wait until subtitle disappears.	Video plays; no pink rectangle appears.		
33	At approx. 15 seconds, watch the display for new subtitle elements.	Shows subtitle image with a pink circle next to wording and no portion of a pink rectangle showing. Example: Black text on white background. Pink circle in the lower right corner. No pink visible around the edges of the subtitle area. 		
34	Wait until subtitle disappears.	Video plays; no pink rectangle appears.		
35	At approx. 23 seconds, watch the display for new subtitle elements.	Shows subtitle image with a pink circle next to wording and no portion of a pink rectangle showing. Example: Black text on white background. Pink circle in the lower right corner. No pink visible around the edges of the subtitle area. 		
36	Wait until subtitle disappears. (Playback will end at approx. 30 seconds.)	Video plays; no pink rectangle appears.		
10	Play File 5 . Select English subtitles.	Video plays; no pink rectangle appears. Grid shown in video is square.		
11	At approx. 5 seconds in, watch the display for subtitle elements.	Shows subtitle elements with no portion of a pink rectangle showing. A light blue border is visible around the edge of the subtitle. The time shown in the subtitle text matches the time shown on the video counter, e.g.: 00:00:05:00		

Step	Action	Expected Results	Result (P, F, N/A)	Tester Notes
12	Continue checking playback for the duration of the file (2 hours).	Throughout the entire file, subtitles are shown every 5 seconds with increasing time stamps. Pink rectangles are never seen.		
	Play File 5 again . Select French subtitles.	Video plays; no pink rectangle appears.		
13	At approx. 5 seconds in, watch the display for subtitle elements.	Shows subtitle elements with no portion of a pink rectangle showing. A light blue border is visible around the edge of the subtitle. The time shown in the subtitle text matches the time shown on the video counter, e.g.: 00:00:05.00 Note that this subtitle text uses a period between the seconds and frames values instead of the colon shown in the English track.		
14	Continue checking playback for the duration of the file (2 hours).	Throughout the entire file, subtitles are shown every 5 seconds with increasing time stamps. Pink rectangles are never seen.		
37	When file playback ends, turn subtitles OFF (see DQ, Task 20).	—		

10.2DSUB002: Placement and Timing of Subtitles with HD Devices

Purpose	Verify that Device handles the placement and timing of text and image subtitles correctly. Placement and timing are determined by the subtitles' hiding of a timed background image in the video stream that appears and disappears.
Specification References	DDevice 8.3.3.3, DDevice 8.3.5
Device Constraints	HD profile.
Result	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> Requires Review <input type="checkbox"/> Not Applicable
Tester Name	
Date Tested	
Device Tested (include version details)	

10.2.1 Prerequisites and Configuration

See page 10 for all prerequisites and configuration instructions applying to this test.

10.2.2 Test Files




In the File Access column, indicate whether the DUT is accessing the file on local storage, networked storage, or another method.


#	Profile	File Name	Description	File Access
1	SD	Solekai044_640_23_1x1_Sync_Subs_Txt_SD.uvu	Non-scaled video, Text subtitles	
2	SD	Solekai046_640_23_1x1_Sync_Subs_Img_SD.uvu	Non-scaled video, Image subtitles	
3	SD	Solekai049_854_23_426x75_Sync_Subs_Txt_SD.uvu	Scaled video with grid, Text subtitles	
4	SD	Solekai050_854_23_426x75_Sync_Subs_Img_SD.uvu	Scaled video with grid, Image subtitles	
5	HD	Solekai045_1920_23_1x1_Sync_Subs_Txt_HD.uvu	Non-scaled video, Text subtitles	
6	HD	Solekai047_1920_23_1x1_Sync_Subs_Img_HD.uvu	Non-scaled video, Image subtitles	
7	HD	Solekai051_1920_23_5x75_Sync_Subs_Txt_HD.uvu	Scaled video with grid, Text subtitles	
8	HD	Solekai052_1920_23_5x75_Sync_Subs_Img_HD.uvu	Scaled video with grid, Image subtitles	
9	SD	Solekai065_640_23_1x1_Sync_Subs_SD.uvu	Two hours of synchronized subtitles with grid video	
10	HD	Solekai065_1920_23_1x1_Sync_Subs_HD.uvu	Two hours of synchronized subtitles with grid video	



10.2.3 Test Procedure



Perform these steps on the DUT.



Step	Action	Expected Results	Result (P, F, N/A)	Tester Notes
1	Set subtitles to be ON (see DQ, Task 19). Play File 1 (see DQ, Task 3).	Video plays; no pink rectangle appears.		
2	At approx. 1 seconds in, watch the display for subtitle elements.	Shows black subtitle elements with no portion of a pink rectangle showing. Example: Black subtitle text on white background. Pink rectangle is not visible		
3	Wait until subtitle disappears. Note: Duration of all subtitles is approx. 5 seconds.	Video plays; no pink rectangle appears.		
4	At approx. 8 seconds, watch the display for new subtitle elements.	Shows blue subtitle elements with pink rectangle showing behind the text. Example: Blue subtitle text on semi-transparent background. Pink rectangle is visible behind the text.		
5	Wait until subtitle disappears.	Video plays; no pink rectangle appears.		
6	At approx. 15 seconds, watch the display for new subtitle elements.	Shows black subtitle elements with no portion of a pink rectangle showing. Example: Black subtitle text on white background. Pink rectangle is not visible.		
7	Wait until subtitle disappears.	Video plays; no pink rectangle appears.		
8	At approx. 23 seconds, watch the display for new subtitle elements.	Shows blue subtitle elements with pink rectangle showing behind the text. Example: Blue subtitle text on semi-transparent background. Pink rectangle is visible behind the text.		



Step	Action	Expected Results	Result (P, F, N/A)	Tester Notes
9	Wait until subtitle disappears. (Playback will end at approx. 30 seconds.)	Video plays; no pink rectangle appears.		
10	Play File 2 .	Video plays; no pink rectangle appears.		
11	At approx. 1 seconds in, watch the display for subtitle elements.	Shows subtitle image with a pink circle next to wording and no portion of a pink rectangle showing. Example: Black text on white background. Pink circle in the lower right corner. No pink visible around the edges of the subtitle area.  Note: During file playback, throughout all verifications of this type the circle is never to be any color except pink.		
12	Wait until subtitle disappears.	Video plays; no pink rectangle appears.		
13	At approx. 8 seconds, watch the display for new subtitle elements.	Shows subtitle image with a pink circle next to wording and no portion of a pink rectangle showing. Example: Black text on white background. Pink circle in the lower right corner. No pink visible around the edges of the subtitle area. 		
14	Wait until subtitle disappears.	Video plays; no pink rectangle appears.		
15	At approx. 15 seconds, watch the display for new subtitle elements.	Shows subtitle image with a pink circle next to wording and no portion of a pink rectangle showing. Example: Black text on white background. Pink circle in the lower right corner. No pink visible around the edges of the subtitle area. 		
16	Wait until subtitle disappears.	Video plays; no pink rectangle appears.		


Step	Action	Expected Results	Result (P, F, N/A)	Tester Notes
17	At approx. 23 seconds, watch the display for new subtitle elements.	Shows subtitle image with a pink circle next to wording and no portion of a pink rectangle showing. Example: Black text on white background. Pink circle in the lower right corner. No pink visible around the edges of the subtitle area. 		
18	Wait until subtitle disappears. (Playback will end at approx. 30 seconds.)	Video plays; no pink rectangle appears.		
19	Play File 3 .	Video plays; no pink rectangle appears. Grid shown in video is square.		
20	At approx. 1 seconds in, watch the display for subtitle elements.	Shows black subtitle elements with no portion of a pink rectangle showing. Example: Black subtitle text on white background. Pink rectangle is not visible		
21	Wait until subtitle disappears. Note: Duration of all subtitles is approx. 5 seconds.	Video plays; no pink rectangle appears.		
22	At approx. 8 seconds, watch the display for new subtitle elements.	Shows blue subtitle elements with pink rectangle showing behind the text. Example: Blue subtitle text on semi-transparent background. Pink rectangle is visible behind the text.		
23	Wait until subtitle disappears.	Video plays; no pink rectangle appears.		
24	At approx. 15 seconds, watch the display for new subtitle elements.	Shows black subtitle elements with no portion of a pink rectangle showing. Example: Black subtitle text on white background. Pink rectangle is not visible.		




Step	Action	Expected Results	Result (P, F, N/A)	Tester Notes
25	Wait until subtitle disappears.	Video plays; no pink rectangle appears.		
26	At approx. 23 seconds, watch the display for new subtitle elements.	Shows blue subtitle elements with pink rectangle showing behind the text. Example: Blue subtitle text on semi-transparent background. Pink rectangle is visible behind the text.		
27	Wait until subtitle disappears. (Playback will end at approx. 30 seconds.)	Video plays; no pink rectangle appears.		
28	Play File 4 .	Video plays; no pink rectangle appears. Grid shown in video is square.		
29	At approx. 1 seconds in, watch the display for subtitle elements.	Shows subtitle image with a pink circle next to wording and no portion of a pink rectangle showing. Example: Black text on white background. Pink circle in the lower right corner. No pink visible around the edges of the subtitle area. 		
30	Wait until subtitle disappears.	Video plays; no pink rectangle appears.		
31	At approx. 8 seconds, watch the display for new subtitle elements.	Shows subtitle image with a pink circle next to wording and no portion of a pink rectangle showing. Example: Black text on white background. Pink circle in the lower right corner. No pink visible around the edges of the subtitle area. 		
32	Wait until subtitle disappears.	Video plays; no pink rectangle appears.		

Step	Action	Expected Results	Result (P, F, N/A)	Tester Notes
33	At approx. 15 seconds, watch the display for new subtitle elements.	Shows subtitle image with a pink circle next to wording and no portion of a pink rectangle showing. Example: Black text on white background. Pink circle in the lower right corner. No pink visible around the edges of the subtitle area. 		
34	Wait until subtitle disappears.	Video plays; no pink rectangle appears.		
35	At approx. 23 seconds, watch the display for new subtitle elements.	Shows subtitle image with a pink circle next to wording and no portion of a pink rectangle showing. Example: Black text on white background. Pink circle in the lower right corner. No pink visible around the edges of the subtitle area. 		
36	Wait until subtitle disappears. (Playback will end at approx. 30 seconds.)	Video plays; no pink rectangle appears.		
37	Play File 5 .	Video plays; no pink rectangle appears.		
38	At approx. 1 seconds in, watch the display for subtitle elements.	Shows black subtitle elements with no portion of a pink rectangle showing. Example: Black subtitle text on white background. Pink rectangle is not visible		
39	Wait until subtitle disappears. Note: Duration of all subtitles is approx. 5 seconds.	Video plays; no pink rectangle appears.		
40	At approx. 8 seconds, watch the display for new subtitle elements.	Shows blue subtitle elements with pink rectangle showing behind the text. Example: Blue subtitle text on semi-transparent background. Pink rectangle is visible behind the text.		

Step	Action	Expected Results	Result (P, F, N/A)	Tester Notes
41	Wait until subtitle disappears.	Video plays; no pink rectangle appears.		
42	At approx. 15 seconds, watch the display for new subtitle elements.	Shows black subtitle elements with no portion of a pink rectangle showing. Example: Black subtitle text on white background. Pink rectangle is not visible.		
43	Wait until subtitle disappears.	Video plays; no pink rectangle appears.		
44	At approx. 23 seconds, watch the display for new subtitle elements.	Shows blue subtitle elements with pink rectangle showing behind the text. Example: Blue subtitle text on semi-transparent background. Pink rectangle is visible behind the text.		
45	Wait until subtitle disappears. (Playback will end at approx. 30 seconds.)	Video plays; no pink rectangle appears.		
46	Play File 6 .	Video plays; no pink rectangle appears.		
47	At approx. 1 seconds in, watch the display for subtitle elements.	Shows subtitle image with a pink circle next to wording and no portion of a pink rectangle showing. Example: Black text on white background. Pink circle in the lower right corner. No pink visible around the edges of the subtitle area. 		
48	Wait until subtitle disappears.	Video plays; no pink rectangle appears.		
49	At approx. 8 seconds, watch the display for new subtitle elements.	Shows subtitle image with a pink circle next to wording and no portion of a pink rectangle showing. Example: Black text on white background. Pink circle in the lower right corner. No pink visible around the edges of the subtitle area. 		

Step	Action	Expected Results	Result (P, F, N/A)	Tester Notes
50	Wait until subtitle disappears.	Video plays; no pink rectangle appears.		
51	At approx. 15 seconds, watch the display for new subtitle elements.	Shows subtitle image with a pink circle next to wording and no portion of a pink rectangle showing. Example: Black text on white background. Pink circle in the lower right corner. No pink visible around the edges of the subtitle area. 		
52	Wait until subtitle disappears.	Video plays; no pink rectangle appears.		
53	At approx. 23 seconds, watch the display for new subtitle elements.	Shows subtitle image with a pink circle next to wording and no portion of a pink rectangle showing. Example: Black text on white background. Pink circle in the lower right corner. No pink visible around the edges of the subtitle area. 		
54	Wait until subtitle disappears. (Playback will end at approx. 30 seconds.)	Video plays; no pink rectangle appears.		
55	Play File 7 .	Video plays; no pink rectangle appears. Grid shown in video is square.		
56	At approx. 1 seconds in, watch the display for subtitle elements.	Shows black subtitle elements with no portion of a pink rectangle showing. Example: Black subtitle text on white background. Pink rectangle is not visible		
57	Wait until subtitle disappears. Note: Duration of all subtitles is approx. 5 seconds.	Video plays; no pink rectangle appears.		

Step	Action	Expected Results	Result (P, F, N/A)	Tester Notes
58	At approx. 8 seconds, watch the display for new subtitle elements.	Shows blue subtitle elements with pink rectangle showing behind the text. Example: Blue subtitle text on semi-transparent background. Pink rectangle is visible behind the text.		
59	Wait until subtitle disappears.	Video plays; no pink rectangle appears.		
60	At approx. 15 seconds, watch the display for new subtitle elements.	Shows black subtitle elements with no portion of a pink rectangle showing. Example: Black subtitle text on white background. Pink rectangle is not visible.		
61	Wait until subtitle disappears.	Video plays; no pink rectangle appears.		
62	At approx. 23 seconds, watch the display for new subtitle elements.	Shows blue subtitle elements with pink rectangle showing behind the text. Example: Blue subtitle text on semi-transparent background. Pink rectangle is visible behind the text.		
63	Wait until subtitle disappears. (Playback will end at approx. 30 seconds.)	Video plays; no pink rectangle appears.		
64	Play File 8 .	Video plays; no pink rectangle appears. Grid shown in video is square.		
65	At approx. 1 seconds in, watch the display for subtitle elements.	Shows subtitle image with a pink circle next to wording and no portion of a pink rectangle showing. Example: Black text on white background. Pink circle in the lower right corner. No pink visible around the edges of the subtitle area. 		
66	Wait until subtitle disappears.	Video plays; no pink rectangle appears.		

Step	Action	Expected Results	Result (P, F, N/A)	Tester Notes
67	At approx. 8 seconds, watch the display for new subtitle elements.	Shows subtitle image with a pink circle next to wording and no portion of a pink rectangle showing. Example: Black text on white background. Pink circle in the lower right corner. No pink visible around the edges of the subtitle area. 		
68	Wait until subtitle disappears.	Video plays; no pink rectangle appears.		
69	At approx. 15 seconds, watch the display for new subtitle elements.	Shows subtitle image with a pink circle next to wording and no portion of a pink rectangle showing. Example: Black text on white background. Pink circle in the lower right corner. No pink visible around the edges of the subtitle area. 		
70	Wait until subtitle disappears.	Video plays; no pink rectangle appears.		
71	At approx. 23 seconds, watch the display for new subtitle elements.	Shows subtitle image with a pink circle next to wording and no portion of a pink rectangle showing. Example: Black text on white background. Pink circle in the lower right corner. No pink visible around the edges of the subtitle area. 		
72	Wait until subtitle disappears. (Playback will end at approx. 30 seconds.)	Video plays; no pink rectangle appears.		
73	Play File 9 . Select English subtitles.	Video plays; no pink rectangle appears. Grid shown in video is square.		
74	At approx. 5 seconds in, watch the display for subtitle elements.	Shows subtitle elements with no portion of a pink rectangle showing. A light blue border is visible around the edge of the subtitle. The time shown in the subtitle text matches the time shown on the video counter, e.g.: 00:00:05:00		

Step	Action	Expected Results	Result (P, F, N/A)	Tester Notes
75	Continue checking playback for the duration of the file (2 hours).	Throughout the entire file, subtitles are shown every 5 seconds with increasing time stamps. Pink rectangles are never seen.		
	Play File 9 again . Select French subtitles.	Video plays; no pink rectangle appears.		
76	At approx. 5 seconds in, watch the display for subtitle elements.	Shows subtitle elements with no portion of a pink rectangle showing. A light blue border is visible around the edge of the subtitle. The time shown in the subtitle text matches the time shown on the video counter, e.g.: 00:00:05.00 Note that this subtitle text uses a period between the seconds and frames values instead of the colon shown in the English track.		
77	Continue checking playback for the duration of the file (2 hours).	Throughout the entire file, subtitles are shown every 5 seconds with increasing time stamps. Pink rectangles are never seen.		
78	Play File 10 . Select English subtitles.	Video plays; no pink rectangle appears. Grid shown in video is square.		
79	At approx. 5 seconds in, watch the display for subtitle elements.	Shows subtitle elements with no portion of a pink rectangle showing. A light blue border is visible around the edge of the subtitle. The time shown in the subtitle text matches the time shown on the video counter, e.g.: 00:00:05:00		
80	Continue checking playback for the duration of the file (2 hours).	Throughout the entire file, subtitles are shown every 5 seconds with increasing time stamps. Pink rectangles are never seen.		
	Play File 10 again . Select French subtitles.	Video plays; no pink rectangle appears.		

Step	Action	Expected Results	Result (P, F, N/A)	Tester Notes
81	At approx. 5 seconds in, watch the display for subtitle elements.	<p>Shows subtitle elements with no portion of a pink rectangle showing. A light blue border is visible around the edge of the subtitle.</p> <p>The time shown in the subtitle text matches the time shown on the video counter, e.g.:</p> <p>00:00:05.00</p> <p>Note that this subtitle text uses a period between the seconds and frames values instead of the colon shown in the English track.</p>		
82	Continue checking playback for the duration of the file (2 hours).	Throughout the entire file, subtitles are shown every 5 seconds with increasing time stamps. Pink rectangles are never seen.		
83	When file playback ends, turn subtitles OFF (see DQ, Task 20).	—		

10.3DSUB003: Maximum Rates for Image Subtitles with SD Devices

Purpose	Verify that the Device displays image subtitles at the maximum rate.
Specification Reference	DMedia B6, DMedia C6
Device Constraints	SD profile.
Result	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> Requires Review <input type="checkbox"/> Not Applicable
Tester Name	
Date Tested	
Device Tested (include version details)	

10.3.1 Prerequisites and Configuration

See page 10 for all prerequisites and configuration instructions applying to this test.

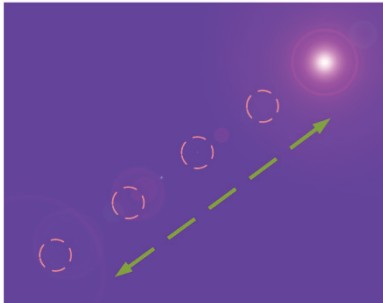
10.3.2 Test Files

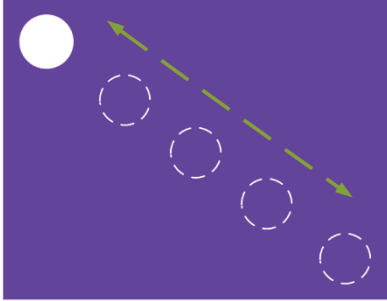
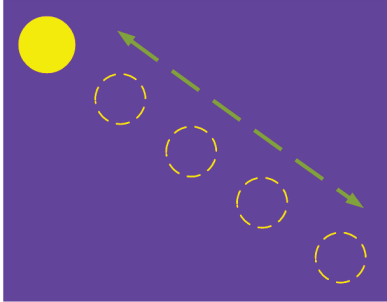
In the File Access column, indicate whether the DUT is accessing the file on local storage, networked storage, or another method.

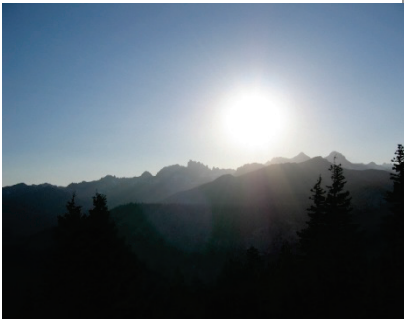

#	Profile	File Name	Description	File Access
1	SD	Solekai022_854_29_640x75_MaxSdSubtitle.uvu	Scaled video, Image subtitles	

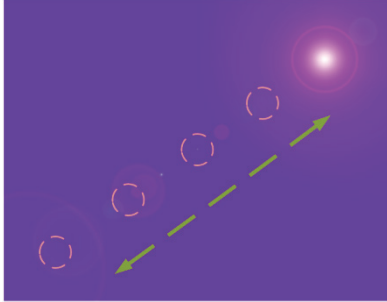
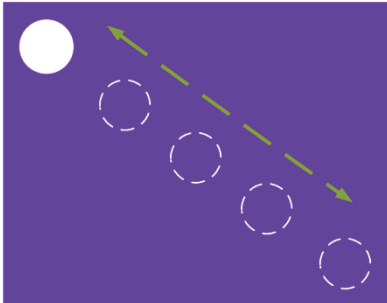
10.3.3 Test Procedure

Perform these steps on the DUT.

Step	Action	Expected Results	Result (P, F, N/A)	Tester Notes
1	<p>Set subtitle language preference to French (see DQ, Task 17).</p> <p>Set subtitles to be ON (see DQ, Task 19).</p> <p>Play File 1 (see DQ, Task 3).</p>	<p>Video plays.</p> <p>Then a series of five image subtitles appears: a 'sun' moving from upper right to lower left, then returning, and then back down again, then ending at the middle position (over approx. 3 seconds).</p>  <p>Overall, the change in positioning is even, without skips in the sequence (except at the sequence restart).</p> <p>Note: Arrows are shown for clarification throughout this test and are not a part of the actual subtitles.</p>		

Step	Action	Expected Results	Result (P, F, N/A)	Tester Notes
2	At approx. 4 seconds, watch the display for new subtitle elements.	<p>A new series of five image subtitles appears: a transparent 'moon'—shown as white here—moving from upper left to lower right, and then returning.</p>  <p>Video can be seen behind the subtitle image.</p> <p>The sequence repeats without pause twice.</p> <p>Overall, the change in positioning is even, without skips in the sequence.</p>		
3	At almost 7 seconds, watch the display for new subtitle elements.	<p>A new series of five image subtitles appears: a yellow 'moon' moving from upper left to lower right, and then returning to the upper left, and ending in the middle position.</p>  <p>Overall, the change in positioning is even, without skips in the sequence.</p>		

Step	Action	Expected Results	Result (P, F, N/A)	Tester Notes
4	At about 10 seconds, watch the display for new subtitle elements.	<p>A series of four images appear that are each a quadrant of the image shown below.</p>  <p>The "tree" set of images is replaced counter-clockwise starting in the upper right quadrant. The new images are solid-color with a hole with a different background color:</p>  <p>The sequence repeats 3 times, and ends with the "tree" image.</p>		

Step	Action	Expected Results	Result (P, F, N/A)	Tester Notes
5	At about 20 seconds, watch the display for new subtitle elements.	<p>A series of five image subtitles appears: a 'sun' moving from upper right to lower left, then returning twice, then back down again, returning to the middle position (over approx. 5 seconds).</p>  <p>Overall, the change in positioning is even, without skips in the sequence (except at the sequence restart).</p>		
6	At about 25 seconds, watch the display for new subtitle elements.	<p>A new series of five image subtitles appears: a 'moon' moving from upper left to lower right, and then returning to the upper left. The top, middle, and bottom images have a white background, and the other two images have no background (video can be seen through the "hole").</p>  <p>Overall, the change in positioning is even, without skips in the sequence.</p>		

Step	Action	Expected Results	Result (P, F, N/A)	Tester Notes
7	Continue watching the display.	The "moon" continues to move from upper left to lower right, with the following background colors matching up with each image: Fuchsia (upper left) No background (middle upper left) Yellow (center) No background (middle lower right) Cyan (lower right) No background (middle lower right) Yellow (center) No background (middle upper left) Fuchsia (upper left) No background (middle upper left) Yellow (center)		
8	When file playback ends, return Device to its default settings.	—		

10.4DSUB004: Maximum Rates for Image Subtitles with HD Devices

Purpose	Verify that the Device displays image subtitles at the maximum rate.
Specification Reference	DMedia B6, DMedia C6
Device Constraints	HD profile.
Result	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> Requires Review <input type="checkbox"/> Not Applicable
Tester Name	
Date Tested	
Device Tested (include version details)	

10.4.1 Prerequisites and Configuration

See page 10 for all prerequisites and configuration instructions applying to this test.

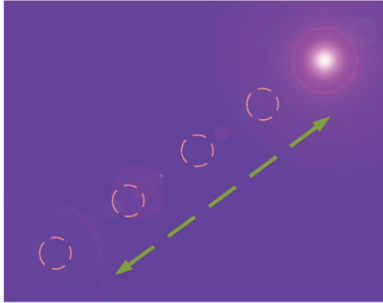
10.4.2 Test Files

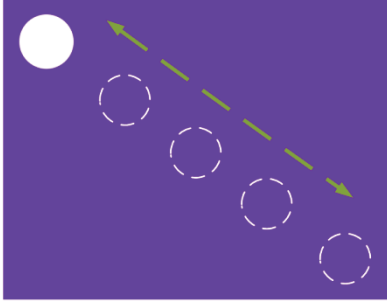
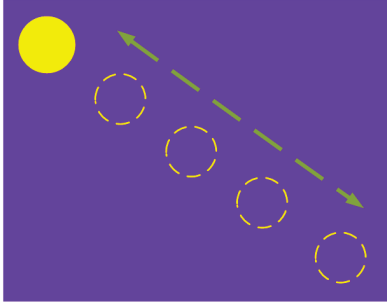
In the File Access column, indicate whether the DUT is accessing the file on local storage, networked storage, or another method.

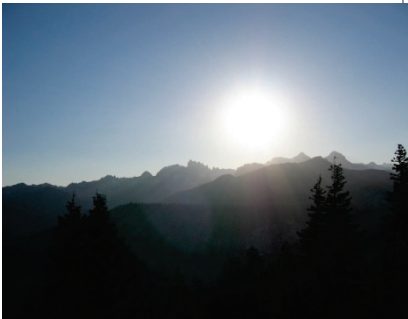

#	Profile	File Name	Description	File Access
1	SD	Solekai022_854_29_640x75_MaxSdSubtitle.uvu	Scaled video, Image and Text subtitles	
2	HD	Solekai023_1920_23_1x1_MaxHdSubtitle.uvu	Non-scaled video, Image and Text subtitles	

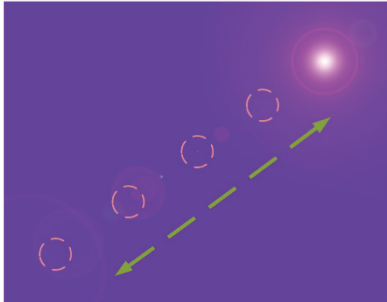
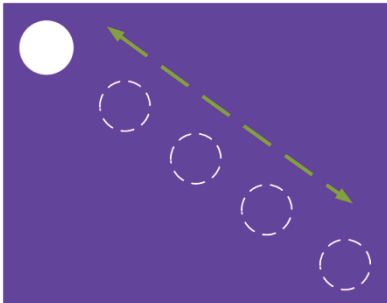
10.4.3 Test Procedure

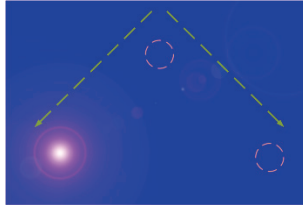
Perform these steps on the DUT.



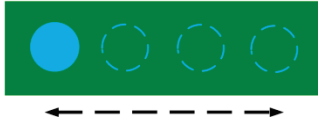
Step	Action	Expected Results	Result (P, F, N/A)	Tester Notes
1	<p>Set subtitle language preference to French (see DQ, Task 17).</p> <p>Set subtitles to be ON (see DQ, Task 19).</p> <p>Play File 1 (see DQ, Task 3).</p>	<p>Video plays.</p> <p>Then a series of five image subtitles appears: a 'sun' moving from upper right to lower left, then returning, and then back down again, then ending at the middle position (over approx. 3 seconds).</p>  <p>Overall, the change in positioning is even, without skips in the sequence (except at the sequence restart).</p> <p>Note: Arrows are shown for clarification throughout this test and are not a part of the actual subtitles.</p>		




Step	Action	Expected Results	Result (P, F, N/A)	Tester Notes
2	At approx. 4 seconds, watch the display for new subtitle elements.	<p>A new series of five image subtitles appears: a transparent 'moon'—shown as white here—moving from upper left to lower right, and then returning.</p>  <p>Video can be seen behind the subtitle image.</p> <p>The sequence repeats without pause twice.</p> <p>Overall, the change in positioning is even, without skips in the sequence.</p>		
3	At almost 7 seconds, watch the display for new subtitle elements.	<p>A new series of five image subtitles appears: a yellow 'moon' moving from upper left to lower right, and then returning to the upper left, and ending in the middle position.</p>  <p>Overall, the change in positioning is even, without skips in the sequence.</p>		




Step	Action	Expected Results	Result (P, F, N/A)	Tester Notes
4	At about 10 seconds, watch the display for new subtitle elements.	<p>A series of four images appear that are each a quadrant of the image shown below.</p>  <p>The "tree" set of images is replaced counter-clockwise starting in the upper right quadrant. The new images are solid-color with a hole with a different background color:</p>  <p>The sequence repeats 3 times, and ends with the "tree" image.</p>		




Step	Action	Expected Results	Result (P, F, N/A)	Tester Notes
5	At about 20 seconds, watch the display for new subtitle elements.	<p>A series of five image subtitles appears: a 'sun' moving from upper right to lower left, then returning twice, then back down again, returning to the middle position (over approx. 5 seconds).</p>  <p>Overall, the change in positioning is even, without skips in the sequence (except at the sequence restart).</p>		
6	At about 25 seconds, watch the display for new subtitle elements.	<p>A new series of five image subtitles appears: a 'moon' moving from upper left to lower right, and then returning to the upper left. The top, middle, and bottom images have a white background, and the other two images have no background (video can be seen through the "hole").</p>  <p>Overall, the change in positioning is even, without skips in the sequence.</p>		






Step	Action	Expected Results	Result (P, F, N/A)	Tester Notes
7	Continue watching the display.	<p>The "moon" continues to move from upper left to lower right, with the following background colors matching up with each image:</p> <p>Fuchsia (upper left)</p> <p>No background (middle upper left)</p> <p>Yellow (center)</p> <p>No background (middle lower right)</p> <p>Cyan (lower right)</p> <p>No background (middle lower right)</p> <p>Yellow (center)</p> <p>No background (middle upper left)</p> <p>Fuchsia (upper left)</p> <p>No background (middle upper left)</p> <p>Yellow (center)</p>		
8	When File 1 ends, start File 2 .	<p>Video plays.</p> <p>Then a series of three image subtitles appears: a 'sun' moving from left to right in the pattern shown below, then returning, and then back down again (over approx. 1 second).</p>  <p>The sequence repeats without pause three times.</p> <p>Overall, the change in positioning is even, without skips in the sequence.</p>		


Step	Action	Expected Results	Result (P, F, N/A)	Tester Notes
9	At approx. 4 seconds, watch the display for new subtitle elements.	<p>A new series of four image subtitles appears: a red bar with transparent ball (video can be seen through the "hole") moving from left to right, and then returning — repeating once.</p>  <p>Overall, the change in positioning is even, without skips in the sequence.</p>		
10	At just after 5 seconds, watch the display for new subtitle elements.	<p>A new series of four image subtitles appears: a green bar with yellow ball moving from left to right, and then returning — repeating once.</p>  <p>Overall, the change in positioning is even, without skips in the sequence.</p>		
11	At just after 6 seconds, watch the display for a repeat of the above elements.	<p>A repeat of the series of four image subtitles appears: a green bar with blue ball moving from left to right, and then returning — repeating once.</p>  <p>Overall, the change in positioning is even, without skips in the sequence.</p>		

Step	Action	Expected Results	Result (P, F, N/A)	Tester Notes
12	At just after 7 seconds, watch the display for new subtitle elements.	<p>A new series of four image subtitles appears: a green bar with yellow ball moving from left to right, and then returning — repeating once.</p>  <p>Overall, the change in positioning is even, without skips in the sequence.</p>		
13	At just after 8 seconds, watch the display for a repeat of the above elements.	<p>A repeat of the series of four image subtitles appears: a green bar with blue ball moving from left to right, and then returning — repeating once.</p>  <p>Overall, the change in positioning is even, without skips in the sequence.</p>		
14	At approx. 9 seconds, watch the display for a repeat of the above elements.	<p>A repeat of the series of four image subtitles appears: a green bar with transparent ball (video can be seen through the "hole") moving from left to right, and then returning — repeating once.</p>  <p>Overall, the change in positioning is even, without skips in the sequence.</p>		

Step	Action	Expected Results	Result (P, F, N/A)	Tester Notes
15	At approx. 10 seconds, watch the display for new subtitle elements.	<p>The following sequence of three images appears quickly, repeating once: First in the left center of the screen with transparent background, then Second time in left center of screen with red background.</p> <p>First</p>  <p>Second</p>  <p>Third</p> 		

Step	Action	Expected Results	Result (P, F, N/A)	Tester Notes
16	At approx. 11 seconds, watch the display for new subtitle elements.	<p>The following sequence of three images appears quickly, 4 times, in the upper right of the screen:</p> <p>First time, as each image appears, the circles/squares are as follows: red, transparent, black.</p> <p>Second time, the circles/squares are as follows: transparent, red, transparent.</p> <p>Third time, the circles/squares are as follows: black, red, black.</p> <p>Fourth time, the circles/squares are as follows: red, black, red.</p> <p>First</p>  <p>Second</p>  <p>Third</p> 		

Step	Action	Expected Results	Result (P, F, N/A)	Tester Notes
17	At approx. 12 seconds, watch the display for new subtitle elements.	<p>The following sequence of four images begins to appear onscreen in an overlapping duration (more than one appears at one time).</p> <p>Each picture is a quadrant of the image shown below:</p>  <p>First this image appears at far right of screen, with blue background.</p>  <p>Next this image appears to the left of the above image, with white background.</p>  <p>Next this image appears below the above image, with yellow background.</p>  <p>Next this image appears to right of the above image, with green background.</p>  <p>Note that this sequence overlaps, time wise, with the sequence in the following step.</p>		

Step	Action	Expected Results	Result (P, F, N/A)	Tester Notes
18	At approx. 13 seconds, watch the display for new subtitle elements.	<p>The following sequence begins to appear onscreen</p> <p>Each quadrant of the image is replaced by a gray rectangle, filled with a different background color. Only one quadrant at a time is covered by the rectangle.</p> <p>First this rectangle image appears at the upper right of screen, with blue background.</p>  <p>Next, the rectangle moves to cover the quadrant in the upper left, with a white background.</p> <p>Next, the rectangle moves to cover the lower left quadrant, with a yellow background.</p> <p>Finally, the rectangle moves to cover the lower right quadrant, with a green background.</p> <p>The sequence of the waterfall image from the previous step followed by the rectangles covering the image repeats a total of 5 times.</p>		
19	At approx. 28 seconds, watch the display.	The waterfall image appears as described in step 17.		
20	When file playback ends, turn subtitles OFF (see DQ, Task 20).	—		

10.5DSUB005: Maximum Rates for Text Subtitles with SD Devices

Purpose	Verify that the Device displays image subtitles at the maximum rate.
Specification Reference	DMedia B6, DMedia C6
Device Constraints	SD profile.
Result	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> Requires Review <input type="checkbox"/> Not Applicable
Tester Name	
Date Tested	
Device Tested (include version details)	

10.5.1 Prerequisites and Configuration

See page 10 for all prerequisites and configuration instructions applying to this test.

10.5.2 Test Files

In the File Access column, indicate whether the DUT is accessing the file on local storage, networked storage, or another method.

#	Profile	File Name	Description	File Access
1	SD	Solekai022_854_29_640x75_MaxSdSubtitle.uvu	Scaled video, Text subtitles	

10.5.3 Test Procedure

Perform these steps on the DUT.

Step	Action	Expected Results	Result (P, F, N/A)	Tester Notes
1	<p>Set subtitle language preference to Spanish (see DQ, Task 17).</p> <p>Set subtitles to be ON (see DQ, Task 19).</p> <p>Play File 1 (see DQ, Task 3).</p>	<p>Video plays.</p> <p>At approx 12 frames, a series of text subtitles with varying sizes and fonts begins to appear, with background colors as shown (note that the color values need not exactly match those shown) and character colors as noted:</p> <p>White characters: This is a subtitle with 38 characters. This text subtitle contains 42 characters.</p> <p>Black characters: This subtitle has 75 characters, which are spread across two lines of text.</p> <p>White characters: This subtitle has 77 characters, which are spread across three lines of text.</p> <p>Overall the change in wording and font is seamless and even, without gaps.</p>		
2	<p>At just over 2 seconds, watch the display for new subtitle elements.</p>	<p>A new series of five text subtitles with varying sizes and formatting begins to appear, in all black characters:</p> <p>Here we have green subtitle that is fairly short. This is a short subtitle. Another short subtitle. A small-text subtitle that is fairly short. Big text.</p> <p>There is a short gap of time between each new subtitle.</p> <p>Overall the change in wording and format is consistent with what the subtitles indicate.</p>		

Step	Action	Expected Results	Result (P, F, N/A)	Tester Notes
3	At just over 4 seconds, watch the display for new subtitle elements.	<p>A new series of four subtitles begins to appear in rapid succession:</p> <p>Small text subtitles flash by fast. These subtitles have gaps between them. There should have been a gap between the previous subtitle and this subtitle. Another gap preceded this subtitle.</p> <p>Overall the change in wording is consistent with what the subtitles indicate.</p>		

Step	Action	Expected Results	Result (P, F, N/A)	Tester Notes
4	At just over 6 seconds, watch the display for new subtitle elements.	<p>A new series of five subtitles begins to appear:</p> <p>This is a large subtitle. using a large font.</p> <p>This subtitle uses a large font and a number of inline styles such as <i>italic</i> and bold.</p> <p>Black characters:</p> <p>This subtitle uses a small font and a lot of inline styles such as <i>italic</i> and bold.</p> <p>White characters:</p> <p>This subtitle makes much use of <code></code> attribute, and should be difficult to render correctly.</p> <p>Black characters:</p> <p>This subtitle uses a large font, a number of inline styles, and <u>many</u> <code></code> elements.</p> <p>Overall the change in wording and format is consistent with what the subtitles indicate.</p>		
5	At just over 11 seconds, watch the display for new subtitle elements.	<p>A new series of two subtitles begins to appear:</p> <p>Black characters:</p> <p>A simple subtitle in a medium-sized font that uses a number of characters that may show up in a subtitle, such as ' () & % ! @ # \$ % ^ * _ - + = : ;</p> <p>White characters:</p> <p>A subtitle in a medium-sized font that uses a number of "special" characters such as ' () & % ! @ # \$ % ^ * _ - + = : ;</p> <p>Overall the change in wording and format is consistent with what the subtitles indicate.</p>		

Step	Action	Expected Results	Result (P, F, N/A)	Tester Notes
6	At approx. 15 seconds, watch the display for new subtitle elements.	<p>A new series of two subtitles begins to appear in all black characters:</p> <p>This is a subtitle that has a very large number of characters in order to test text wrapping and general formatting of text. It even has multiple sentences to make it longer, which will help test the rendering of text-based subtitles in more extreme cases.</p> <p>This is another subtitle that has a very large number of characters, primarily so that the previous long subtitle might be displayed long enough that someone could possibly be able to read it. This subtitle also has multiple sentences in order to lengthen it appropriately. The rendering rate for text subtitles is quite high, especially if only using text and not using a number of background colors.</p> <p>Overall the change in wording and format is consistent with what the subtitles indicate.</p>		

Step	Action	Expected Results	Result (P, F, N/A)	Tester Notes
7	At approx. 20 seconds, watch the display for new subtitle elements	<p>A new series of three subtitles begins to appear in all white characters:</p> <p>This subtitle uses number of different background colors for each layer, including the <div>, <p>, and several elements.</p> <p>This subtitle uses number of different background colors for each layer, including the <div>, <p>, and several elements. In addition to rendering different background colors, this subtitle has a large number of characters.</p> <p>Again, this subtitle uses a number of different background colors for each layer, including the <div>, <p>, and several elements. In addition to rendering different background colors, this subtitle has a large number of characters.</p> <p>Overall the change in wording and format is consistent with what the subtitles indicate.</p>		
8	At approx. 28 seconds, watch the display for new subtitle elements	<p>A new series of two subtitles begins to appear:</p> <p>Dark cyan characters outlined in yellow:</p> <p>This is another subtitle that has a very large number of characters in order to test text wrapping and general formatting of text. It even has multiple sentences to make it longer, which will help test the rendering of text-based subtitles in more extreme cases.</p> <p>White characters:</p> <p>This subtitle makes much use of the attribute, and should be difficult to render correctly.</p> <p>Overall the change in wording and format is consistent with what the subtitles indicate.</p>		
9	When file playback ends, return Device to its default settings.	—		

10.6DSUB006: Maximum Rates for Text Subtitles with HD Devices

Purpose	Verify that the Device displays text subtitles at the maximum rate.
Specification Reference	DMedia B6, DMedia C6
Device Constraints	HD profile.
Result	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> Requires Review <input type="checkbox"/> Not Applicable
Tester Name	
Date Tested	
Device Tested (include version details)	

10.6.1 Prerequisites and Configuration

See page 10 for all prerequisites and configuration instructions applying to this test.

10.6.2 Test Files

In the File Access column, indicate whether the DUT is accessing the file on local storage, networked storage, or another method.

#	Profile	File Name	Description	File Access
1	SD	Solekai022_854_29_640x75_MaxSdSubtitle.uvu	Scaled video, Text subtitles	
2	HD	Solekai023_1920_23_1x1_MaxHdSubtitle.uvu	Non-scaled video, Text subtitles	

10.6.3 Test Procedure

Perform these steps on the DUT.

Step	Action	Expected Results	Result (P, F, N/A)	Tester Notes
1	<p>Set subtitle language preference to Spanish (see DQ, Task 17).</p> <p>Set subtitles to be ON (see DQ, Task 19).</p> <p>Play File 1 (see DQ, Task 3).</p>	<p>Video plays.</p> <p>At approx 12 frames, a series of text subtitles with varying sizes and fonts begins to appear, with background colors as shown (note that the color values need not exactly match those shown) and character colors as noted:</p> <p>White characters: This is a subtitle with 38 characters. This text subtitle contains 42 characters.</p> <p>Black characters: This subtitle has 75 characters, which are spread across two lines of text.</p> <p>White characters: This subtitle has 77 characters, which are spread across three lines of text.</p> <p>Overall the change in wording and font is seamless and even, without gaps.</p>		
2	<p>At just over 2 seconds, watch the display for new subtitle elements.</p>	<p>A new series of five text subtitles with varying sizes and formatting begins to appear, in all black characters:</p> <p>Here we have green subtitle that is fairly short. This is a short subtitle. Another short subtitle. A small-text subtitle that is fairly short. Big text.</p> <p>There is a short gap of time between each new subtitle.</p> <p>Overall the change in wording and format is consistent with what the subtitles indicate.</p>		

Step	Action	Expected Results	Result (P, F, N/A)	Tester Notes
3	At just over 4 seconds, watch the display for new subtitle elements.	<p>A new series of four subtitles begins to appear in rapid succession:</p> <p>Small text subtitles flash by fast. These subtitles have gaps between them.</p> <p>There should have been a gap between the previous subtitle and this subtitle.</p> <p>Another gap preceded this subtitle.</p> <p>Overall the change in wording is consistent with what the subtitles indicate.</p>		
4	At just over 6 seconds, watch the display for new subtitle elements.	<p>A new series of five subtitles begins to appear:</p> <p>This is a large subtitle. using a large font.</p> <p>This subtitle uses a large font and a number of inline styles such as <i>italic</i> and bold.</p> <p>Black characters:</p> <p>This subtitle uses a small font and a lot of inline styles such as <i>italic</i> and bold.</p> <p>White characters:</p> <p>This subtitle makes much use of <code></code> attribute, and should be difficult to render <code>correctly</code>.</p> <p>Black characters:</p> <p>This subtitle uses a large font, a number of inline styles, and <u>many</u> <code></code> elements.</p> <p>Overall the change in wording and format is consistent with what the subtitles indicate.</p>		

Step	Action	Expected Results	Result (P, F, N/A)	Tester Notes
5	At just over 11 seconds, watch the display for new subtitle elements.	<p>A new series of two subtitles begins to appear:</p> <p>Black characters: A simple subtitle in a medium-sized font that uses a number of characters that may show up in a subtitle, such as ' () & % ! @ # \$ % ^ * _ - + = : ;</p> <p>White characters: A subtitle in a medium-sized font that uses a number of "special" characters such as ' () & % ! @ # \$ % ^ * _ - + = : ;</p> <p>Overall the change in wording and format is consistent with what the subtitles indicate.</p>		
6	At approx. 15 seconds, watch the display for new subtitle elements.	<p>A new series of two subtitles begins to appear in all black characters:</p> <p>This is a subtitle that has a very large number of characters in order to test text wrapping and general formatting of text. It even has multiple sentences to make it longer, which will help test the rendering of text-based subtitles in more extreme cases.</p> <p>This is another subtitle that has a very large number of characters, primarily so that the previous long subtitle might be displayed long enough that someone could possibly be able to read it. This subtitle also has multiple sentences in order to lengthen it appropriately. The rendering rate for text subtitles is quite high, especially if only using text and not using a number of background colors.</p> <p>Overall the change in wording and format is consistent with what the subtitles indicate.</p>		

Step	Action	Expected Results	Result (P, F, N/A)	Tester Notes
7	At approx. 20 seconds, watch the display for new subtitle elements	<p>A new series of three subtitles begins to appear in all white characters:</p> <p>This subtitle uses number of different background colors for each layer, including the <div>, <p>, and several elements.</p> <p>This subtitle uses number of different background colors for each layer, including the <div>, <p>, and several elements. In addition to rendering different background colors, this subtitle has a large number of characters.</p> <p>Again, this subtitle uses a number of different background colors for each layer, including the <div>, <p>, and several elements. In addition to rendering different background colors, this subtitle has a large number of characters.</p> <p>Overall the change in wording and format is consistent with what the subtitles indicate.</p>		
8	At approx. 28 seconds, watch the display for new subtitle elements	<p>A new series of two subtitles begins to appear:</p> <p>Dark cyan characters outlined in yellow:</p> <p>This is another subtitle that has a very large number of characters in order to test text wrapping and general formatting of text. It even has multiple sentences to make it longer, which will help test the rendering of text-based subtitles in more extreme cases.</p> <p>White characters:</p> <p>This subtitle makes much use of the attribute, and should be difficult to render correctly.</p> <p>Overall the change in wording and format is consistent with what the subtitles indicate.</p>		

Step	Action	Expected Results	Result (P, F, N/A)	Tester Notes
9	When File 1 ends, start File 2 .	<p>Video plays.</p> <p>At approx 10 frames, a series of text subtitles with varying sizes and fonts begins to appear, with background colors as shown (note that the color values need not exactly match those shown) and character colors in white:</p> <p style="text-align: right;"> Start Start by Start by adding Start by adding one Start by adding one word Start by adding one word at Start by adding one word at a Start by adding one word at a time. </p> <p>Overall the change in wording and font is seamless and even, without gaps.</p>		
10	At approx. 1 second, watch the display for new subtitle elements.	<p>A new series of five subtitles begins to appear with the same text in white characters and a sequence of changing background colors:</p> <p style="text-align: center;">Repeated subtitle with different background colors.</p> <p>Overall the change in colors is smooth.</p>		
11	At just over 3 seconds, watch the display for new subtitle elements.	<p>A new series of five text subtitles with varying sizes and formatting begins to appear, in all black characters:</p> <p style="text-align: center;"> Another short subtitle with small text. A small-text subtitle that is fairly short. Large text. </p> <p>Overall the change in wording and format is consistent with what the subtitles indicate.</p>		

Step	Action	Expected Results	Result (P, F, N/A)	Tester Notes
12	At just over 4 seconds, watch the display for new subtitle elements.	<p>A new series of five text subtitles with varying sizes and formatting begins to appear, in all black characters:</p> <p>Small text subtitles flash by fast. These subtitles have gaps between them. There should have been a gap between the previous subtitle and this subtitle. Another gap preceded this subtitle.</p> <p>Overall the change in wording and format is consistent with what the subtitles indicate.</p>		
13	At just over 7 seconds, watch the display for new subtitle elements.	<p>A new series of five subtitles begins to appear:</p> <p>This is a large subtitle. using a large font. This subtitle uses a large font and a number of inline styles such as <i>italic</i> and bold.</p> <p>Black characters: This subtitle uses a small font and a lot of inline styles such as <i>italic</i> and bold.</p> <p>White characters: This subtitle makes much use of <code></code> attribute, and should be difficult to render <u>correctly</u>.</p> <p>Black characters: This subtitle uses a large font, a number of inline styles, and <u>many</u> <code></code> elements.</p> <p>Overall the change in wording and format is consistent with what the subtitles indicate.</p>		

Step	Action	Expected Results	Result (P, F, N/A)	Tester Notes
14	At approx. 13 seconds, watch the display for new subtitle elements.	<p>A new series of two subtitles begins to appear:</p> <p>Black characters: A simple subtitle in a medium-sized font that uses a number of characters that may show up in a subtitle, such as ' () & % ! @ # \$ % ^ * _ - + = : ;</p> <p>White characters: A subtitle in a medium-sized font that uses a number of "special" characters such as ' () & % ! @ # \$ % ^ * _ - + = : ;</p> <p>Overall the change in wording and format is consistent with what the subtitles indicate.</p>		
15	At just over 16 seconds, watch the display for new subtitle elements.	<p>A new series of two subtitles begins to appear in all black characters:</p> <p>This is a subtitle that has a very large number of characters in order to test text wrapping and general formatting of text. It even has multiple sentences to make it longer, which will help test the rendering of text-based subtitles in more extreme cases.</p> <p>This is another subtitle that has a very large number of characters, primarily so that the previous long subtitle might be displayed long enough that someone could possibly be able to read it. This subtitle also has multiple sentences in order to lengthen it appropriately. The rendering rate for text subtitles is quite high, especially if only using text and not using a number of background colors.</p> <p>Overall the change in wording and format is consistent with what the subtitles indicate.</p>		

Step	Action	Expected Results	Result (P, F, N/A)	Tester Notes
16	At just over 23 seconds, watch the display for new subtitle elements	<p>A new series of two subtitles begins to appear in all white characters:</p> <p>This subtitle uses number of different background colors for each layer, including the <div>, <p>, and several elements.</p> <p>This subtitle uses number of different background colors for each layer, including the <div>, <p>, and several elements. In addition to rendering different background colors, this subtitle has a large number of characters. This subtitle is the same as the previous subtitle, but in a small font. When using a small font on a large region, an author could use a lot of characters.</p> <p>Overall the change in wording and format is consistent with what the subtitles indicate.</p>		
17	When file playback ends, turn subtitles OFF (see DQ, Task 20).	—		

10.7 DSUB007: Display of Forced Subtitles

Purpose	Verify that the Device displays only forced subtitle elements when subtitles are OFF.
Specification Reference	DMedia 1.7.6
Device Constraints	None.
Result	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> Requires Review <input type="checkbox"/> Not Applicable
Tester Name	
Date Tested	
Device Tested (include version details)	

10.7.1 Prerequisites and Configuration

See page 10 for all prerequisites and configuration instructions applying to this test.

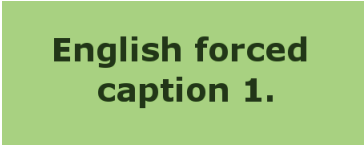
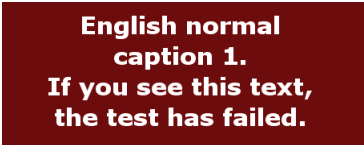
10.7.2 Test Files

In the File Access column, indicate whether the DUT is accessing the file on local storage, networked storage, or another method.

#	Profile	File Name	Description	File Access
1	SD	Solekai_track_selection013.uvu	Contains image-based forced subtitles	
2	SD	Solekai_track_selection018.uvu	Contains text -based forced subtitles	

10.7.3 Test Procedure

Repeat this procedure for each test file supported by the DUT.

Step	Action	Expected Results	Result (P, F, N/A)	Tester Notes
1	Set the system language to English. (See DQ, Task 10.) Set subtitles to be OFF. (See DQ, Task 20.) Play File 1 to completion. File duration is 30 seconds.	Shows forced subtitle elements. Example: English forced caption 1.		
2	While the file plays, watch the display for subtitle elements.	At no time during playback is a non-forced subtitle displayed. Example: English normal caption 1. If you see this text, the test has failed.		
3	Play File 2 to completion. File duration is 30 seconds.	Shows forced subtitle elements. Example: 		
4	While the file plays, watch the display for subtitle elements.	At no time during playback is a non-forced subtitle displayed. Example: 		

10.8DSUB008: Maximum Number of Subtitle Tracks

Purpose	Verify that the Device is able to access all subtitle tracks when the maximum number (255) of tracks are included.
Specification Reference	DMedia B6, DMedia C6
Device Constraints	None.
Result	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> Requires Review <input type="checkbox"/> Not Applicable
Tester Name	
Date Tested	
Device Tested (include version details)	

10.8.1 Prerequisites and Configuration

See page 10 for all prerequisites and configuration instructions applying to this test.

10.8.2 Test Files

In the File Access column, indicate whether the DUT is accessing the file on local storage, networked storage, or another method.

#	Profile	File Name	Description	File Access
1	SD	Solekai032_MaxNumSubtitleTracks.uvu	Contains 255 subtitle tracks	

10.8.3 Test Procedure

Perform these steps on the DUT.

Step	Action	Expected Results	Result (P, F, N/A)	Tester Notes
1	Set subtitles to be ON (see DQ, Task 19). Play File 1 (see DQ, Task 3). Display listing of subtitle track selections (see DQ, Task 18).	Video and audio are present. There are 255 languages in the track list. Note: See the accompanying file Solekai_SubtitleLanguages.xlsx for details on the languages used.		
2	Spot check the list (approx. every tenth track is sufficient) to observe the result of selecting the subtitle track. Note: Restart playback of File 1 as often as necessary.	Each selection shows image-based subtitles indicating their position in the list. Note: It is not necessary to verify that the indicated numbers match the track order; only that the subtitles exist.		
3	When finished, turn subtitles OFF (see DQ, Task 20).	—		

10.9DSUB009: Subtitle Time Representations

Purpose	Verify that the Device is able to display subtitles using different time representations.
Specification Reference	DMedia B6, DMedia C6
Device Constraints	None.
Result	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> Requires Review <input type="checkbox"/> Not Applicable
Tester Name	
Date Tested	
Device Tested (include version details)	

10.9.1 Prerequisites and Configuration

See page 10 for all prerequisites and configuration instructions applying to this test.

10.9.2 Test Files

In the File Access column, indicate whether the DUT is accessing the file on local storage, networked storage, or another method.

#	Profile	File Name	Description	File Access
1	SD	Solekai055_640_23_1x1_TimeReps_SD.uvu	Contains subtitle tracks using different time representations (e.g., ticks, fractional seconds, fractional hours).	

10.9.3 Test Procedure

Perform these steps on the DUT.

Step	Action	Expected Results	Result (P, F, N/A)	Tester Notes
1	Set subtitles to be ON (see DQ, Task 19). Play File 1 (see DQ, Task 3). Display listing of subtitle track selections (see DQ, Task 18) and select the English subtitle track.	Video and audio are present. Three subtitles are displayed and removed within one frame of the following times: Caption 1, displayed at 00:00:02:08, removed at 00:00:05:12 Caption 2, displayed at 00:00:07:20, removed at 00:00:10:12 Caption 3, displayed at 00:00:11:21, removed at 00:00:14:05 The subtitle text indicates that they are English captions.		
2	Play File 1 again and select the French subtitle track.	Video and audio are present. Three subtitles are displayed and removed within one frame of the following times: Caption 1, displayed at 00:00:02:08, removed at 00:00:05:12 Caption 2, displayed at 00:00:07:20, removed at 00:00:10:12 Caption 3, displayed at 00:00:11:21, removed at 00:00:14:05 The subtitle text indicates that they are French captions.		
3	Play File 1 again and select the German subtitle track.	Video and audio are present. Three subtitles are displayed and removed within one frame of the following times: Caption 1, displayed at 00:00:02:08, removed at 00:00:05:12 Caption 2, displayed at 00:00:07:20, removed at 00:00:10:12 Caption 3, displayed at 00:00:11:21, removed at 00:00:14:05 The subtitle text indicates that they are German captions.		

Step	Action	Expected Results	Result (P, F, N/A)	Tester Notes
4	Play File 1 again and select the Spanish subtitle track.	<p>Video and audio are present.</p> <p>Three subtitles are displayed and removed within one frame of the following times:</p> <p>Caption 1, displayed at 00:00:02:08, removed at 00:00:05:12</p> <p>Caption 2, displayed at 00:00:07:20, removed at 00:00:10:12</p> <p>Caption 3, displayed at 00:00:11:21, removed at 00:00:14:05</p> <p>The subtitle text indicates that they are Spanish captions.</p>		
5	Play File 1 again and select the Portuguese subtitle track.	<p>Video and audio are present.</p> <p>Three subtitles are displayed and removed within one frame of the following times:</p> <p>Caption 1, displayed at 00:00:02:08, removed at 00:00:05:12</p> <p>Caption 2, displayed at 00:00:07:20, removed at 00:00:10:12</p> <p>Caption 3, displayed at 00:00:11:21, removed at 00:00:14:05</p> <p>The subtitle text indicates that they are Portuguese captions.</p>		
6	Play File 1 again and select the Italian subtitle track.	<p>Video and audio are present.</p> <p>Three subtitles are displayed and removed within one frame of the following times:</p> <p>Caption 1, displayed at 00:00:02:08, removed at 00:00:05:12</p> <p>Caption 2, displayed at 00:00:07:20, removed at 00:00:10:12</p> <p>Caption 3, displayed at 00:00:11:21, removed at 00:00:14:05</p> <p>The subtitle text indicates that they are Italian captions.</p>		
7	When finished, turn subtitles OFF (see DQ, Task 20).	—		